

ABSTRACT

A method of embossing a sheet material includes: heating at least a portion of the sheet directly or indirectly with radiant energy from a radiant energy source; pressing a tool against the heated portion of the sheet, thereby patterning a surface of the sheet; and separating the sheet and the tool. The radiant energy may travel through a solid material that is relatively transparent to radiation, on its way to being absorbed by a relatively-absorptive material. The relatively-transparent material may be an unheated portion of the sheet, and the relatively-absorptive material may be either the tool or the heated portion of the sheet. Alternatively, the relatively-transparent material may be the tool, and the relatively-absorptive material may be all or part of the sheet. The method may be performed as one or more roll-to-roll operations.